

THE

CURSOR

GROUP™

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DREAMS COME TRUE

BY

FRED CORNETT
MANAGING EDITOR

I have spent the last two years hearing and reading a never-ending series of empty promises regarding a memory add-on, to include a full size ASCII keyboard and a higher level (more powerful) language than we have now! A few months back, I finally came to the realization that Bally merely wanted to keep us hooked as long as possible, and had no intention of marketing an add-on.

Our next step was to start reviewing methods of creating an "add-on" ourselves. I had seen several add-on schemes that provided 4K and sold in the \$200. range, but did not include a new language and were not very useful for the average person. We then started kluging up our own unit and made plans to get it into production.

WHAM! We got a call from Astrovision that caused instant rejoicing!!

ASTROVISION has developed an "add-under" that they have named the "Z GRASS 32". This unit includes a full size ASCII keyboard, and the Bally Arcade sits on top of it. This unit includes the following features:

1. A "Microsoft" type BASIC with floating point math.
2. The "Z Grass" graphics language,

which was written by Tom DeFanti, and is considered to be the finest real-time animation graphics language in existence.

3. 32K of RAM
4. Two RS232 Serial Ports for connecting printers, telephone modems, etc.
5. On-board Disk Operating System.
6. Changing the Baud rate on the Audio Cassette Interface from 300 to 2000.
7. Macro-handling capability.
8. Hi-Resolution graphics.
9. Full size ASCII keyboard.

ASTROVISION will be placing twenty five "Z GRASS 32" units through CURSOR for field testing and evaluation in March 1981.

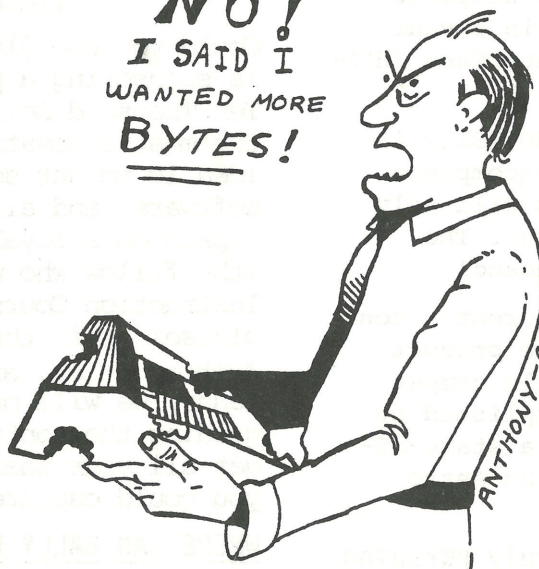
The "Z GRASS 32" is expected to be available in retail stores prior to June 1981 (and from CURSOR if you can't find it locally.) The best news is that the price will only be \$599. A tremendous value!!!

AND THAT AIN'T ALL!!!!!!

Astrovision has signed contracts with a number of leading software houses to produce 8 NEW CARTRIDGES! These cartridges will be:

1. Galactic Invasion (a home version of the extremely popular Penny Arcade game "GALAXIAN".)
2. SPACE FORTRESS
3. BASKETBALL
4. SOCCER
5. CHESS (Finally)
6. OTHELLO
7. ADVENTURE (a Dungeon and Dragon type

NO!
I SAID I
WANTED MORE
BYTES!



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game.)

8. MUSIC COMPOSER

The first cartridge released will be "GALACTIC INVASION", scheduled for March.

If you are a little pessimistic about all these products and need a little nudge to feel as optimistic as I do, read on...

ASTROVISION has invested several million dollars in the purchase of the Bally Consumer Products Division. Let's examine what ASTROVISION got out of the deal:

Three years ago, when the Bally Arcade first appeared, it was considered state-of-the-art! Since that time, it has not kept pace with industry advances. Since Bally stopped production on the Audio Interface one year ago, and stock became non-existent, dealers and distributors started dropping the unit like flies. What's the point in selling someone a computer without an interface?

The first thing Astrovision did was order E.F. Johnson (they manufacture the Arcade) to crank up production on the complete unit, and for the first time in a year started shipping the Audio Interface (HOO-RAY!).

The major problem facing ASTROVISION is the necessity in recreating a complete distribution network. Dealers will only stock an item that is in demand. The Arcade is not presently in demand!

The only way Astrovision can create a consumer demand is by producing a product that is exciting and has little competition. This can only be accomplished by marketing new cartridges and a state-of-the-art add-on (or add-under as Astro puts it.)

ASTROVISION is very aggressively pursuing the marketing of the Bally Arcade. All one needs as proof, is to have a telephone conversation with Ray George (Astrovision's Sales Vice President). After the conversation, you'll wonder what time it was when the steam roller hit you!

ASTROVISION will have a booth at the "National Winter Consumer Electronics Show" in Las Vegas in January which will be staffed by Astrovision Executives, S & W Distributing and myself. The "Z GRASS 32" will be unveiled at the show and Tom DeFanti will be there to put it through it's paces. Astro was only able to get a 12x20

booth since they could not register earlier.

The next issue of CURSOR will cover the CES Show and will include photographs.

HOLD ON, DON'T STOP READING, THERE'S MORE!

ASTROVISION is looking for a Customer Service Manager. Their major requirement is that the applicant be a somewhat long-time Bally Arcade owner, and be very familiar with the hardware and software aspects of this machine (in other words, they want a Bally fanatic) who would be able to help people over the phone when they have problems and answer mail dealing with technical problems, among others. If you have a pleasant telephone voice and think you might meet the requirements, drop CURSOR a line to include your resume and we will see that the right people get it.

ASTROVISION is also looking for a National Service Manager. The job requirements are rather obvious.

\$10,000.00 PRIZE

Could you use \$10,000.00??? Astrovision is sponsoring a programming contest, with Ten Thousand Dollars as First Prize for the most innovative program submitted. The idea is to get some new and innovative software, and allow the authors to participate on a royalty basis. *Dick Ainsworth* (the fellow who wrote the Bally Programmed Instruction Course, no booing or hissing please) is in the process of writing an Authors Guide, and as soon as the Guide is ready, we will print the particulars regarding the contest. So, you programmers get all your sharp ideas out of mothballs, you could capture the pot of gold!!!

WHERE CAN BALLY PRODUCTS BE PURCHASED????

Until Astrovision has their distribution network going and retail stores in your area start carrying Bally products, CURSOR has started stocking all Bally products as a customer service. If you are a dealer please drop us a line on your letterhead to that effect, and we will tell customers in your area who call or write what your location is.

All the following items are in stock except Pinball which is currently on back-order until the factory releases new stock. Prices include shipping and handling. California orders must include 6%

sales tax. Money Orders receive priority attention. Prices for all items mentioned within our pages are subject to change without further notice.

2001	- Z80Zzap/Dodgem	\$ 21.95
2002	- Sea Wolf/Missile	\$ 21.95
2003	- Panzer Attack/Red Baron	\$ 26.95
2004	- Clowns/Brickyard	\$ 26.95
2005	- Star Battle	\$ 21.95
2009	- Astro Battle (formally called Space Invaders)	\$ 26.95
2010	- Dogpatch	\$ 26.95
3001	- Baseball/Tennis/Hockey/Handball	\$ 26.95
3002	- Football	\$ 26.95
3005	- Bally Pinball	\$ 26.95
4001	- Bingo Math/Speed Math	\$ 21.95
4002	- Letter Match/Crosswords/Spell n' Score	\$ 26.95
5001	- Amazin Maze/Tic-Tac-Toe	\$ 21.95
5002	- Black Jack/Poker/Acey Duecy	\$ 26.95

ABA1000- Bally Computer System
Includes 4 Built-in games
& 2 hand controls. \$299.95

ACCESSORIES:

	Bally Basic Cartridge	\$ 54.95
	Pair Hand Controls	\$ 34.95
	Audio Interface (stores your programs on tape.)	\$ 54.95
	Cursor Brand Quality Computer Digital C20 Tape. 10 Tape Case	\$ 14.95
HD-1	All electronic tape recorder head demagnetizer (no moving parts-watch battery operated)	\$ 25.95

All the above products are shipped either Priority Mail or UPS.

The following is a short description of some of the most popular cartridges for those of you who have not seen them:

ASTRO BATTLE: *This is the original Space Invader cartridge that has been sweeping the country. If you haven't seen it, go to your local Penny Arcade.*

PINBALL: *This cartridge is every bit as good as a pinball game in the Arcade. The only thing it won't do is TILT!*

FOOTBALL: Considered by many to be the best football on the market

(can be played by four players.)

CLOWNS:

Very original game. Small gremlins dance off a platform, your object is to move a teeter/totter under the platform, and throw the gremlin into a row of balloons thereby gathering points.

DOGPATCH:

New Cartridge; two player game. Each player is stationed on opposite sides of the screen holding shotguns. A small man at center bottom of screen throws up a tin can, object of game is to shoot tin can off opponents side of screen without opponent shooting it back. CHILDREN LOVE IT!!!

AMAZIN MAZE:

Creates maze with different levels of complexity which can be selected by the player. Can be played by one or two players. A must for the maze fan. The other half of this cartridge is TIC-TAC-TOE...*Boring!!!*

BLACK JACK:

We played this cartridge 3 years ago and thought it was boring, but when we recently drug it out for this review found ourselves somewhat addicted to it. Strange... The cartridge got better, or we have a need for gambling!

RED BARON:

This one is tough, it requires concentration and skill to fly a Bi-plane against an opponent avoiding Snoopy's doghouse and hiding out in the clouds-great effects. PANZER ATTACK: Standard tank game, if you've seen one, you've seen them all.

BASEBALL:

The baseball is great if you don't have one on another computer. But in our opinion the Tennis, Hockey and Handball are unique. They are almost as good as the Intellivision graphics.

BINGO MATH:

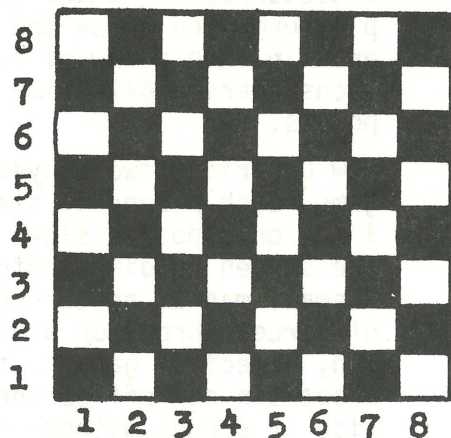
An excellent educational cartridge. We love it. Kid's too.

CHESSETTE

BY

CRAIG ANDERSON

This is a two-player program. The chess-board is laid out as follows:



To determine the coordinates of any piece or square, read "right up". For example, the white king begins at square 51. The black queen's pawn begins at square 47.

When the screen displays the prompt "FROM:" enter the square of the piece you wish to move, then press "GO". When the prompt "TO:" appears, enter the square to which you are moving, then press "GO". The computer will complete the move after a few seconds.

EXAMPLE: King's pawn opening by White.

FROM: 52 (press GO)
TO: 54 (press GO)

EXAMPLE: King's knight response by Black.

FROM: 78 (press GO)
TO: 66 (press GO)

All subsequent moves are entered in a similar manner, with three exceptions.

1. CASTLING. Enter the rook move only, adding a zero after the "TO:" square before pressing GO. This initiates the automatic castling sequence, and the computer will complete the entire move of both pieces.

EXAMPLE: King's side castle by White.

FROM: 81 (PRESS GO)
TO: 610 (press GO)

EXAMPLE: Queen's side castle by Black.

FROM: 18 (press GO)
TO: 480 (press GO)

2. EN PASSANT.

Enter the move as though the taking pawn was moving to the square occupied by the taken pawn. This initiates the automatic en passant sequence, and the computer will complete the entire move stepping behind the taken piece in the correct manner.

EXAMPLE: Fifth rank White king's pawn captures fourth rank Black queen's pawn after its initial two-square option.

FROM: 55 (press GO)
TO: 45 (press GO)

the computer will actually move the above white pawn to square 46 and will erase the black pawn at square 45; the correct sequence.

3. PAWN PROMOTION. As soon as the computer sees that you are moving a pawn to your opponent's back rank, it will ask: "CHOICE?" before completing the move. Enter the rank and color of the piece to which you are promoting the pawn. Negative numbers are white, positive numbers are black. Ranks are as follows:

WHITE		BLACK	
Pawn:	-1	Pawn:	1
Knight	-2	Knight	2
Bishop	-3	Bishop	3
Rook	-4	Rook	4
Queen	-5	Queen	5
King	-6	King	6

Obviously you cannot promote to a pawn (-1,1) or a king (-6,6), but the computer will not reject illegal entries. We assume, however, that your opponent will object strenuously!

The usual promotion is to queen or knight.

EXAMPLE: White pawn to promote to White queen:

FROM: 57 (press GO)
TO: 58 (press GO)
CHOICE: -5 (press GO)

The computer will complete the sequence.

ERRORS AND HANDICAPS

You can correct most errors simply by taking another turn and moving the piece back to where it came from. Suppose, however, that your error caused you to capture another piece. That piece has been

removed from the board and must be replaced. Enter the following:

FROM: 0 (press G0)
TO: 0 (press G0)

The screen will clear and a dimensioned array of the memory will appear, showing the colors and ranks of all the pieces in their current positions on the board. Empty squares are indicated by zero.

The board is stored in string memory, strings 1 through 64. The strings are arranged as follows:

8	16	24	32	40	48	56	64
7	15	23	31	39	47	55	63
6	14	22	30	38	46	54	62
5	13	21	29	37	45	53	61
4	12	20	28	36	44	52	60
3	11	19	27	35	43	51	59
2	10	18	26	34	42	50	58
1	9	17	25	33	41	49	57

You may now HALT the program and change any string location to any value you wish, or erase pieces by changing the value of the string location to zero.

For example, the White queen (15) is stored in string @(25) above. You can handicap White by a queen by HALTING the program and entering : @(25)=0;GOTO 61 then pressing G0. The screen will clear, the board and pieces will reappear, but the White queen will be gone.

You can use the same procedure to change any piece to any other piece, or to replace missing pieces or correct mistakes or to set up chess problems or demonstrations. Just remember to type GOTO 61 and press G0. This will return the board with your corrections but without changing the locations of any other pieces.

To return to the board from the memory display diagram, simply press any key. The board will reappear with all the pieces in their correct places.

Load and RUN the CHESSETTE program. A chessboard will appear on the right of the screen, and the pieces will be placed in their starting positions.

```

1 .CHESSETTE
2 .BY C.J. ANDERSON
5 NT=0; GOTO 100
10 A=0;FOR B=0TO 70STEP 10;FOR C=-35TO 3
    5STEP 10
11 A=A+1
12 IF @(A)=@(A+64)GOTO 16
13 W=1;IF @(A)>0W=2
14 X=B;Y=C;GOSUB 20+ABS(@(A))

```

```

15 @(A+64)=@(A)
16 NEXT C
17 NEXT B;BOX -45,0,70,80,2
18 GOTO 130
20 BOX X,Y,8,8,(PX(X,Y+4)+3)/2;BOX X,Y,
    8,8,3;RETURN
21 U=8;V=8;GOSUB 50;W=3;U=4;V=4;GOSUB 5
    0;Y=Y+2;U=2;V=1;GOSUB 50;Y=Y-2;RETUR
    N
22 GOSUB 40;X=X-2;Y=Y-2;U=2;V=2;GOSUB 5
    0;RETURN
23 GOSUB 40;U=4;V=2;GOSUB 50;U=2;V=4;GO
    SUB 50;RETURN
24 GOSUB 40;Y=Y+2;U=2;V=2;GOSUB 50;RETU
    RN
25 GOSUB 40;Y=Y+1;U=4;V=4;GOSUB 50;U=2;
    GOSUB 50;RETURN
26 GOSUB 40;Y=Y+1;U=6;V=4;GOSUB 50;U=2;
    GOSUB 50;U=4;V=2;GOSUB 50;RETURN
40 U=8;V=8;GOSUB 50;W=3;U=6;V=6;GOSUB 5
    0;RETURN
50 BOX X,Y,U,V,W;RETURN
60 CLEAR ;FOR J=8TO 1STEP -1;FOR K=JTO
    64STEP 8;PRINT #2,@(K),;NEXT K;PRINT
    ;NEXT J;PRINT ;PRINT "PRESS ANY KEY
    TO RETURN ";J=KP
61 FOR J=65TO 128;@(J)=0;NEXT J;GOTO 12
    0
100 FOR A=1TO 128;@(A)=0;NEXT A;FOR A=2T
    O 58STEP 8;@(A)=-1;@(A+5)=1;NEXT A
110 @(8)=4;@(16)=2;@(24)=3;@(32)=5;@(40)
    =6;@(48)=3;@(56)=2;@(64)=4;FOR A=1TO
    57STEP 8;@(A)=0-@(A+7);NEXT A
120 CLEAR ;FOR A=0TO 60STEP 20;BOX A,0,1
    0,80,1;NEXT A;FOR A=-35TO 25STEP 20;
    BOX 35,A,80,10,3;NEXT A;BOX 35,0,82,
    82,3;GOTO 100
130 CY=4;INPUT "FROM:"F," TO:"T
140 IF F=0IF T=0GOTO 60
150 B=T;IF T>88T=T/10
160 F=F-(8+(F/10*2));T=T-(8+(T/10*2))
170 IF B<89GOTO 200
180 @(T)=@(F);@(F)=0;IF T<F@(T+8)=@(T-8)
    ;@(T-8)=0;GOTO 100
190 @(T-8)=@(T+8);@(T+8)=0;GOTO 100
200 IF ABS(@(F))#1GOTO 250
210 IF ABS(F-T)#8GOTO 250
220 @(T)=@(F);@(F)=0
230 F @(T)=1@(T-1)=1;@(T)=0;GOTO 100
240 @(T+1)=-1;@(T)=0;GOTO 100
250 IF ABS(@(F))=1IF (T/8*8=T)+((T+7)/8*
    8=T+7)INPUT "CHOICE?"A;@(F)=0;@(T)=A
    ;GOTO 100
260 @(T)=@(F);@(F)=0;GOTO 100

```

NOTE: This issue does not contain the usual amount of programs and hardware information due to all the good news out of Astrovision. January issue will make up for this lack !!!

THE FORGOTTEN HALF

BY

PAT BRADY

CONTRIBUTING EDITOR

This column is devoted to the forgotten half. You will know who you are!

To you, PRINT is that blouse that you bought that is still hanging in your closet.

A GOSUB is a small submarine that Jacques Cousteau uses for exploring; a LINE NUMBER is what the birds do to your clothes line every spring. Do you remember when a PROGRAM meant "Days of Our Lives"? When pictures on the screen moved all by themselves and not with a Hand Control? For us those days are long gone!!

Now, I don't know when your life changed, but mine changed on December 25, 1979. Yes, we were blessed with a beautiful bouncing BALLY!!!! Our new arrival seemed to look harmless indeed, offering hours of entertainment for the whole family and taking up minimal space on the coffee table.

The one cartridge entitled "BALLY BASIC" held no interest for anyone over "Space Invaders". We anxiously awaited being able to purchase a new cartridge. It became a compulsion, save some money, buy a cartridge. This continued until we had every cartridge available and boredom was setting in. The "BALLY BASIC" cartridge was just laying in its box waiting..... By comparison Pandora's Box was an ice-cream maker.....

As all good things must come to an end, a very clever person in this family decided to test our "BALLY BASIC" cartridge and see what it could do. Can you imagine the surprise on everyones face when by inputting BC=any #, the screen changed color? Of course you can, you've been through this, right???????? Right!

The beginning of the end, the end of TV shows on Saturday or Sunday. The end of Saturday morning cartoons for the kids. for a while I was beginning to think I was losing control...Every question I asked had to be in quotation marks to be understood.

I would find myself staying up late, trying to find a way to make this harmless

toy that had taken over our lives, disappear.....I could drop it down the stairs??? No, too obvious...I could take it apart and steal the chips????? No, I could just see it, the kids would get blamed and I couldn't let them take the blame!!! Could I???????? No, what kind of person would do that.....DESPERATE....

I would welcome any advice on learning to cope, or baring that at least a very sneaky and cunning way to get rid of the darned thing without any chance of the blame falling on me!

HOW?

BALLY BASIC

P.S. If you write me, you don't have to worry about his reading my mail, he's too busy with you-know-what to ever check the mail.

PAT BRADY

806 Walden Ct.

Schaumburg, IL 60193

****MANUALS*MANUALS*MANUALS*MANUALS****

NOTE: ALL MANUALS SENT 3RD CLASS UNLESS OTHERWISE DESIGNATED

1. Bally On-Board ROM Sub-Routines. Explains the use of the on-board routines which allow you to perform such things as you find in the "Machine Language Programs" in Cursor. Includes ASCII Standard & Nonstandard Character Sets, Cassette Memory Structure; Output Ports; Input Ports; Bally Data Base Locations; Bally Memory Locations; and On-Board ROM 8K Hex Dump. \$3.99
2. Hackers Manual. Describes features provided in the Tiny Basic but not documented in the Bally Instruction Booklet. (Additional Commands). \$3.49
3. Disassembled Tiny Basic (CDOS Z80 Assembler Version 02.15) A complete assembly language listing including OP Code and comments of the Tiny Basic Cartridge. \$7.49
4. Disassembled Brickyard & Clowns. A complete assembly language listing including OP Code and comments. \$7.99
5. Disassembled DEMO Cassette. A complete assembly language listing including OP Code and comments. \$7.49
6. Bally System Description Book. Extensive and includes "Electrical Specifications for Midway Custom Circuits", Timing Interrupt handling explanations, etc. \$7.99
7. Disassembled System Software. A complete assembly language listing including OP Code and comments to include: Home Video Game Equates; Port Equates; System Call Indexes; Macros; Music Macros; Music Equates; System RAM Memory Cells; User Supplied Routines; Masks; UPI Routines Address Tables; Sentry; BCD Divide; BCD Subtract & Add; Decrement Counters & Timers; Music CPU; Vectoring Routines; Paint Rectangle Routines; Write Routines; Character Display Routines; Display BCD; Menu Routines and much, much more. \$11.99
8. Disassembled On-Board Games. A complete assembly language listing including OP Code and comments to include: Scribbling, Calculator, Checkmate, Gun Fight. \$13.75
9. Bally Service Manual. Schematics, Parts Lists, instructions for removing RF Shields, and much more. No one should be without it!! \$3.19
10. PEEK n' POKE: The only manual written that is truly beginner level. Opens up the power of machine language; tells how to get floating point decimal out of this machine along with programs. \$7.50

NOTE: Add 7% to the total order for First Class Postage. SEND TO: CURSOR, P.O. Box 266, No. Hollywood, CA 91603

SOFTWARE REVIEW

BY

C. J. ANDERSON

As a music lover and sometime musician I have been particularly impressed by three cassettes released this month, which push the Bally's music capabilities to new boundaries.

Two are the result of a half-year of dedicated work by *George Moses*, who has given the Bally some credibility as a music synthesizer. After two years of listening to computers like the Apple II and the Commodore PET playing the Pachelbel "Kanon in D" and "Alla Turca" from Mozart's Sonata in A, I was becoming embarrassed by Bally's one-note version of "Tavern in the Town."

Moses has led us out of the desert with a collection of Bach's fifteen Two-Part Inventions. He has patiently modified and re-modified the 3-part Music Assembler program, eliminating the timing problems of earlier versions, and has painstakingly transcribed over 22,000 inputs to create a cassette that is state-of-the-art as far as the Bally's sound synthesizer is concerned. Whether you're a Bach lover or a beginning computer music composer, you'll find this tape well worth the \$7.50 investment. Moses goes a step further with his Arcade Christmas Music cassette, a selection of 27 pieces, including most of the popular carols and Yuletide melodies, which feature organ-like vibrato effects in appropriate passages (\$9.50). Both programs run automatically from start to finish, making them ideal for background music, holiday parties or mood music as you labor over your latest flow chart.

The other item, seventh in the *WaveMakers* series, is a complete Guitar Instruction Course by Mike Peace. Mike is a professional musician and recording artist in addition to being a fine programmer. Imagine what it would cost to have such a teacher available on command, to bear with you for hours showing you chord progressions, fingering and chord patterns and even tuning your guitar for you. Hundreds of dollars, no doubt, but Mike's cassette does all that and more. It displays the guitar neck on the screen, outputs the exact tone of each string for tuning, then allows you to select any conceivable key and any of three different progressions: blues, country or ballad. As the six notes of each

chord are strummed (the Bally can only play three at one time, but you'll have to run this program several times, as I did, before you believe it!), the finger positions appear on the frets then disappear as the next chord is displayed. Not only that, but the individual strings actually vibrate on the screen as each string is played...a magnificent effect (guitar course sells for \$12.95)!

To receive these programs (a must for any serious Bally user interested in music), contact the authors:

Bach Tape & Holiday Music

GEORGE MOSES CO.

DEPT 4B

P.O. BOX 686

Brighton, MI 48116

GUITAR COURSE

WAVEMAKERS

BOX 94801

Schaumburg, IL 60193

Editors Note: CURSOR received all three of these tapes for review, and we consider them a tremendous bargain, they are by far 3 of the very best pieces of software ever created for the Bally. F.C.

■ BACK ISSUES AVAILABLE ■

We have had numerous requests for info regarding BACK ISSUES! The following are available:

1. Jan. 80 Contains: Electric Bill Analysis; Plastic Puzzle, Instructions for adding a Full-sized ASCII Keyboard; Life Synthesis Model.
2. Feb. 80 Contains: PEEK n' POKE: Hex to Decimal Converter; String Array @ (A) Memory Locator; Instructions on how to add a Printer; Bubble Sort; Camel; Memory Map; WUMPUS.
3. Mar. 80 Contains: Three Voice Music Assembler; Star Wars Music; Chopsticks; Chicago Loop; Lace Curtain; Character Set Size Multiplier; Rotation; National Distributor Info.
4. Apr/May 80 Contains: DMA Graphics (eliminates BOX & LINE commands, allows very complex graphics!); Reference Books, Product Review (Computer Ear-Speech Recognition Unit for Bally); Music Contest; RING; Alarm Clock; Byte Saving Hints.
5. June 80 Contains: Direct Color Video/Audio Circuit (for Color Monitor or VCR etc.); Galactibattle (Game); PRINT & STRING Tutorial; OTHELLO: ASCII Conversion Chart; Cursor Control Chart.
6. July 80 Contains: CURSOR Keyboard & 48K Memory Add-On info; ARCADE GOLF; Shell-Metzner Sort; Wavemakers "Maze-maker"; Floating Point Math; User Group Meetings.
- VOL. 2, Issue 1 (August) Contains: Cursor Inventory Control (Business Software); "Connect Four" (a professional quality game); software for the Computer Ear (Anderson Research) - 'Fun With Music'.
- VOL. 2, Issue 2 (Sept.) Contains: ASTROVISION ACQUIRES BALLY - an Editorial; Spider Web (Graphics Program); Reverse (Game); Design (a Graphics Program); Match Quiz (an Education Program); Note Match (an Education Program).
- VOL. 2, Issue 3 (October) Contains: Peek n' Poke Tutorial; Critter - a Machine Language Program that creates a non-blinking FAST moving character; Poor Mans Memory Expansion (a tutorial); Sideswipe (car driving game); We Three Kings of Orient Are (3 Voice Chord Music); Machine Language Graphics Tutorial.

SEND \$1.60 per back issue desired OR \$9.75 for Volumn 1 to:
CURSOR, P. O. Box 266, No. Hollywood, CA 91603.

HAND CONTROL JITTERS ?

Are your hand controlled characters jumping all around your TV screen? When you're playing Gunfight, do 2 or 3 bullets fire each time you pull the trigger?

If so, it's time for a **HAND CONTROL TUNE-UP!!!**

Have the Cursor technicians get your hand controls working like new again. Package up your hand controls, and send them post paid to THE CURSOR GROUP, 1010A West Magnolia, Suite 201, Burbank, CA 91506, along with a check or money order to cover the Tune-up fee of \$4.50 + \$2.25 postage and handling (1 hand control), or \$8.50 + \$2.75 postage & handling (for one pair).

If your hand controls require extensive parts and labor (not covered by Tune-up) your approval will be required prior to completion of repair.

PLEASE DO NOT SEND HAND CONTROLS TO OUR P.O. BOX!!!!!!!!!!!!

BALLY SOURCEBOOK

A sourcebook is a compilation of all known sources of software, hardware, service, etc., available for Bally users. This sourcebook follows the lines established by the sourcebooks that are available for Apple II and TRS80 owners.

If you desire a computer listing of all known sources of products pertaining to the Bally unit, this sourcebook is a must!!!

Please send \$5.00 cash or money order to:

RICHARD HOUSER
635 Los Alamos Ave.
Livermore, CA 94550

CURSOR
P.O. BOX 266, NO. HOLLYWOOD, CA 91603

FIRST CLASS

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ATARI USERS NEWSLETTER

Sample Issue \$1.50

M. R. Dunn
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***WaveMakers. games for Bally.**

The photographs depict Tape #1 (Horse Race & Max the Robot) and Tape #3 (Maze Race and Obstacle Course). Each Tape is Priced at \$7.95 including postage, etc. This software is strongly recommended by CURSOR. Send Checks or Money Orders to: WAVEMAKERS, Box 94801, Schaumburg, IL 60193

